

Standard Operating Procedures for Latent Print Processing with Amido Black (Water Base - Fischer 98)

1 Scope

Amido Black (Water base - Fischer 98) contains a blood fixer and is a process used by latent print personnel to develop latent prints and enhance visible prints that have been deposited in blood.

2 Equipment/Materials/Reagents

Beakers or graduated cylinders

Balance

Spatula

Distilled water

Tissue

Water (for rinse)

Squirt bottles, sprayers, brushes, or glass trays

Magnetic stirrer and stir bar(s)

Naphthol Blue Black (dye content $\geq 85\%$)

5-Sulfosalicylic Acid (purity $\geq 99\%$)

Formic Acid (concentrated)

Sodium Carbonate

Photo-Flo 600 Solution

Tween 20

N-dodecylamine Acetate

Glacial Acetic Acid

Fume hood

3 Standards and Controls

Not applicable.

4 Sampling or Sample Selection

Not applicable.

5 Procedures

5.1 Developer Solution Preparation

a) Combine:

- Naphthol Blue Black - 3 g
- Glacial Acetic Acid - 50 ml
- Distilled water - 500 ml
- 5-Sulfosalicylic Acid - 20 g
- Sodium Carbonate - 3 g
- Formic Acid - 50 ml
- Photo-Flo 600 Solution - 12.5 ml

Note: Can be used immediately with acceptable results but works best if mixed and stored in a bottle several days before use.

Photo-Flo 600 may be replaced with 125ml of Tween 20 detergent solution. Combine the following and stir until all chemicals dissolve:

- n-Dodecylamine Acetate - 3 g
- Tween 20 - 4 g
- Distilled water - 1000 ml

- a) Stir until Naphthol Blue Black dissolves (approximately 30 minutes).
- b) Raise final volume to approximately 1000 ml with distilled water.

5.2 Application

- a) Apply developer solution to specimen by spraying, dipping, painting, or squirting. The application of the solution can be isolated by using a tissue. The tissue(s) is placed on the specimen over the area to be processed. The solution is then applied to the tissue(s).

- b) Leave developer solution on specimen for 3 to 5 minutes.
- c) Rinse with water.
- d) Allow specimen to dry.
- e) For digital capture and photography, see FBI Latent Print Units Processing Manual, Preamble.

5.3 Storage

Developer solution may be stored in any type of laboratory accepted receptacle.

5.4 Shelf Life

Developer solution has an indefinite shelf life provided the reagent checks are satisfactory.

5.5 Reagent Checks

See FBI Latent Print Units Processing Manual, Preamble.

6 Calculations

Not applicable.

7 Measurement Uncertainty

Not applicable.

8 Limitations

Not applicable.

9 Safety

See FBI Laboratory Safety Manual for appropriate information.

10 References

FBI Laboratory Safety Manual, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Processing Manual, Preamble, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Sears, V. G. and Prizeman, T. M. "Enhancement of Fingerprints in Blood - Part 1: The Optimization of Amido Black". *JFI*.50(5):470.

Trozzi, T. A., Schwartz, R. L., and Hollars, M. L. *Processing Guide for Developing Latent Prints*, FBI Laboratory, Washington DC, 2001.

Rev. #	Issue Date	History
1	12/16/16	Section 1, added personnel and removed “one-step”. Section 2, added two chemicals and tissue. Section 4 removed and remaining renumbered. Titles for Section 4 and Section 7 modified. Section 5.1, moved “Note” below first bulleted list; added information on Tween 20; moved stirring instructions to new numbered line. Section 5.2, added information on isolated processing. Section 5.5, removed specific section. Section 9, made general. Section 10, updated.
2	10/02/17	Updated to add Biometrics Analysis Unit.

Approval

Redacted - Signatures on File